

Westford's Roadmap to Net Zero 2050

Frequently Asked Questions

What Are Greenhouse Gases?

A greenhouse gas (GHG) is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, greenhouse gases are responsible for the greenhouse effect, which ultimately leads to global warming.

What Is Net Zero?

Put simply, net zero means we are not adding new GHG emissions to the atmosphere. Emissions will continue, but will be balanced by absorbing an equivalent amount from the atmosphere.

Why Net Zero?

Climate scientists have made it clear that the world needs to reduce greenhouse gas pollution to net zero by 2050 to avoid catastrophic climate change. Westford has committed to achieving net zero carbon emissions by 2050. This goal is consistent with:

- Worldwide efforts to reduce GHG pollution, including the Paris Climate Accord, the European Union, Japan and more than 110 other countries
- President Biden's commitment to ensure that the U.S. achieves a 100% clean energy economy and net zero emissions no later than 2050
- Massachusetts' Next Generation Roadmap recently signed by Governor Charlie Baker and overwhelmingly passed by the State Legislature

Is Net Zero 2050 A Feasible Goal?

Yes, a recent study by Princeton University provides a highly detailed blueprint for achieving a carbon-neutral economy in the United States by 2050. The study concludes that with an ambitious, nationwide effort the US could reach net zero by 2050 using existing technology and at costs aligned with historical spending on energy.

What Does It Mean To Be A Net Zero Community?

A net zero municipality produces net zero GHG emissions. This means the community gets as much energy from renewable sources (wind, solar, water) as it uses. Getting to net zero requires energy efficiency, reduced energy consumption, local clean energy production, and the purchasing of renewable energy.

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What Is A Net Zero Roadmap?

A net zero roadmap is a long term plan for steps a city or town will take to reach net zero. It provides a timeline with short- and long-term goals and priority actions.

Who Is Creating Westford's Roadmap And How Is It Developed?

Westford's Clean Energy and Sustainability Committee was charged by the Select Board with creating Westford's Roadmap to Net Zero and the effort is underway. The first step of the process is to conduct a Greenhouse Gas Inventory. They will survey current community wide GHG emissions, including those from energy, buildings, transportation, land use, and waste. The results of this survey will allow the Roadmap to focus on the biggest emitters of GHG. The plan will be created as a collaborative process involving all stakeholders in the community.

How Does Westford Get To Net Zero?

Implementing the Roadmap Plan, currently under development, will require the dedication and commitment from the Town and residents over the next 30 years. We know that we need to make our buildings and vehicles, the town's major sources of GHG pollution in our community, much more efficient and powered by renewable electricity. The Roadmap Plan will provide detailed guidelines.

How Much Will This Cost?

The short answer is that we don't know how much it will cost to implement the roadmap. There likely will be added costs associated with certain measures, but there will also be cost savings. For example:

- At present the cost of building a new energy-efficient, all-electric single-family home is comparable to the cost of building a home heated with natural gas, and lifetime operating costs to the owner are often lower. This is true even if the federal or state government never implements carbon pollution pricing or other fossil fuel restrictions, which would make the economics of all-electric construction even more favorable.
- The cost of electricity from new renewable energy facilities is often lower than the cost of electricity from conventional generation. The trend is towards lower costs as the technology continues to improve.
- Similarly, the cost of EVs has been steadily dropping, and they are expected to be less expensive to purchase than comparable gasoline vehicles after 2025
- EVs are already less expensive to maintain and fuel.

More importantly, the costs of doing nothing, or too little, are very high in terms of public health, environmental degradation and infrastructure damage.

2050 Is Far Away. What Can We Do Now?

Westford's Roadmap to Net Zero will include steps that we can take immediately. We have all the technology we need to get started! Important initial steps will be increasing energy efficiency and reducing the use of fossil fuels in our buildings and purchasing electric vehicles to meet our transportation needs.

Will Westford's Roadmap Include Mandates?

Westford's Roadmap to Net Zero is being developed by the Clean Energy and Sustainability Committee. It will be presented to the Select Board when it is complete. An initial report will be made in October 2021. The Select Board and Town Meeting will implement the plan, as they see fit. To be successful, the plan will require buy-in of Westford's businesses and residents.